

TRANSPORTATION

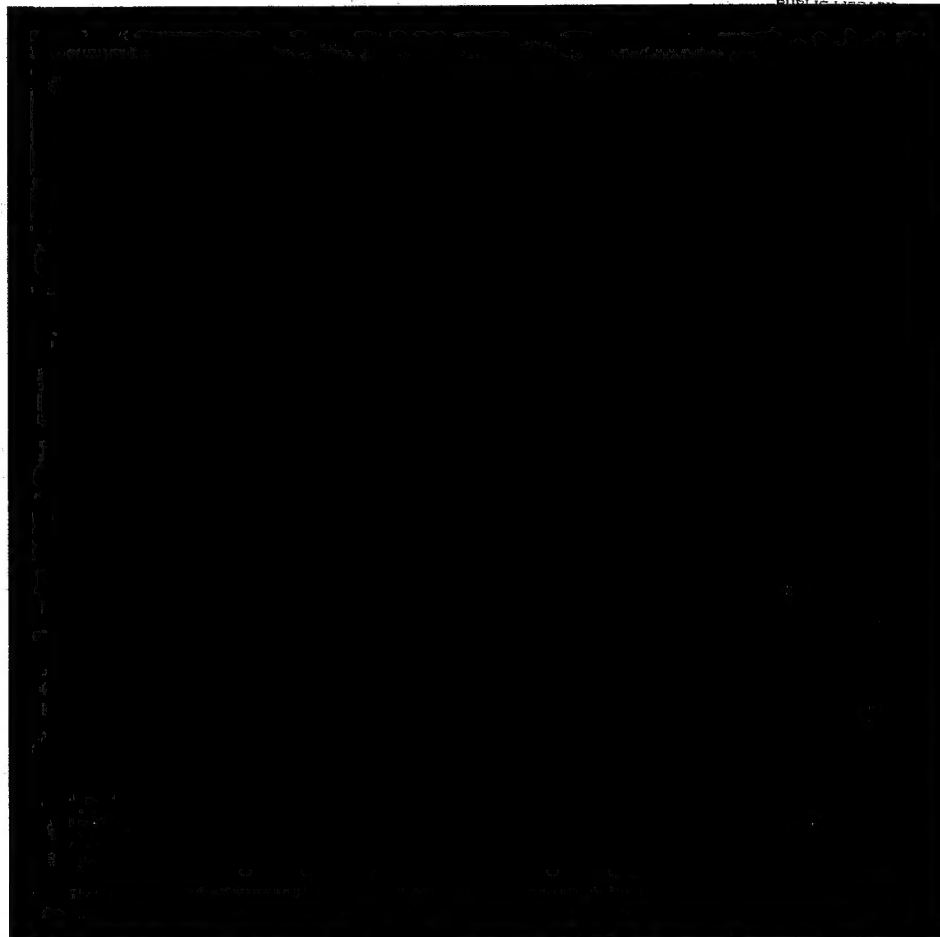
TRANSPORTATION

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CITY AND COUNTY OF SAN FRANCISCO

THE COMPREHENSIVE PLAN

TRANSPORTATION

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THE MASTER PLAN

It shall be the function and duty of the commission to adopt and maintain, including necessary changes therein, a comprehensive, long-term, general plan for the improvement and future development of the city and county, to be known as the master plan. The master plan shall include maps, plans, charts, exhibits, and descriptive, interpretive, and analytical matter, based on physical, social, economic, and financial data, which together present a broad and general guide and pattern constituting the recommendations of the commission for the coordinated and harmonious development, in accordance with present and future needs, of the city and county and of any land outside the boundaries thereof which in the opinion of the commission bears a relation thereto.

Excerpt, Charter of the City and County of San Francisco.

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THE COMPREHENSIVE PLAN

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The Plan for Transportation was adopted by Resolution 6834 of the San Francisco City Planning Commission on April 27, 1972.

INTRODUCTION

The Plan for Transportation is composed of several sections, each of which deals with an important component of the transportation system. The plan elements are (1) the Mass Transit Plan, (2) the Thoroughfares Plan, (3) the Downtown Transportation Plan, and (4) the Citywide Parking Plan. Each consists of objectives and policies regarding a particular segment of the transportation system and related maps which describe key physical aspects. The Mass Transit and Thoroughfares plans cover the two predominant modes of travel. Since these are alternative travel systems which often parallel each other, the two plans must be read together to understand the functions assigned to each and their characteristics. Each must also be understood in relation to the other elements of the Comprehensive Plan of the City. The Downtown Transportation Plan isolates downtown San Francisco for special coverage because of the unique problems associated with travel to, from and within the single most important travel destination in the Bay Area. The Citywide Parking Plan is brief and not comprehensive, requiring expansion when more information is available on citywide parking demand and supply.

An overall framework for the separate plan components is provided by the statement of General Objectives and Policies for Trans-

portation, which introduces the Plan. The two general objectives are intended to express desirable goals. They may not always be in harmony. For instance, it may not be possible to satisfy all travel needs in the most convenient manner and at the same time maintain a transportation system which preserves and promotes a desirable living and working environment, supports development in the right locations, and is financially reasonable. Each specific proposal or policy in the separate plans might well be seen as a compromise among these overall objectives and policies, based on weighing the advantages, disadvantages and costs of various alternatives.

This Plan was prepared in cooperation with the Department of Public Works and the Municipal Railway. Not all of the policies recommended are new. Some have existed or been implied in ongoing transportation programs and improvements. It has not been possible at this time to include in the Plan consideration of intercity air and rail transportation. Although these are proper subjects for the Comprehensive Plan, they are not actually forms of intra-urban transportation. Since the problems associated with these aspects of transportation are basically regional in nature, they should be dealt with primarily at a regional level.

FUNDAMENTAL ASSUMPTIONS

AUTOMOBILE TRAVEL IN THE CITY

The impact of automobile traffic on the San Francisco environment is an undeniable problem. Increasing traffic portends more damage in addition to greater difficulty and inconvenience in traveling by car within the city. A basic assumption of the Transportation Plan is that a desirable living environment and a prosperous business environment cannot be maintained if traffic levels continue to increase without limits. Various methods must be used to control and reshape the impact of automobiles on the city and to use other means of transportation to improve the environment.

One method for controlling automobiles is to limit the capacity of streets and highways, especially those entering the city. Some such limits will be necessary to prevent commuter travel from changing the character of many parts of the city and overburdening local streets.

A second method is to improve transit service in order to make it at least as efficient and comfortable as the private auto, both for commuters and for residents with many kinds of trip purposes. While some people ride transit because they have no alternative, others will ride only if transit is the better way to travel. Within San Francisco, fortunately, the Municipal Railway has maintained a higher level of service than most cities. The approach can be made even more positive by "selling" transit with continuously better service to attract more riders. It is an assumption of this Plan that the convenience and comfort of transit service will have to be increased sufficiently to attract a larger proportion of total travel within the city.

Another method for controlling the total level of automobile traffic, but the least desirable one, is that of accepting congestion in certain circumstances. Congestion signals to travelers that the system is overloaded and that the particular route or time for travel is not an efficient one. At the same time congestion is an implicit control on traffic volumes because it restricts the number of vehicles which can move through a limited space. No one likes congestion; it involves loss of time, inconvenience and

frustration. It may also increase pollution and encourage drivers to use residential streets. On the other hand, when a great many people desire to travel at the same time to the same place, it is unavoidable. (This is also true for transit.) Those who can do so should travel at a different time or to a different place. It is assumed that congestion can never be totally eliminated: the costs—both monetary and environmental—of providing for potential peak traffic flows would be too high. In addition, in some circumstances congestion must be used to restrict total traffic volumes, particularly during interim periods when transit is being improved or where the cost of providing convenient automobile travel is unacceptable.

Another method of restricting the impact of automobile traffic is to confine major movements to certain routes. It is a principle of the Plan to do this, while providing for convenient automobile movements where they are necessary or desirable.

COMMUTER TRAVEL TO THE CITY

The assumption of the Plan for Residence that San Francisco's population will not and should not grow substantially, when related to assumptions about job growth in San Francisco, is pertinent to the Plan for Transportation as well. Over the past ten years, the population and resident labor force have declined while employment has increased; the combination of these factors has caused a large increase in commuter travel to the city. Available projections indicate a continuation of this trend, suggesting that the number of commuters could double from about 200,000 to almost 400,000 daily by 1990.

Although these projections may be regarded as excessive, net new jobs will be filled largely by nonresidents, causing an increase in commuter travel. Any increase will require expanded transportation, since existing facilities are strained to capacity during the rush hours. The need to provide greatly expanded facilities poses both environmental

and financial problems: growth, like everything else, has its costs. This is true, not merely in the case of transportation, but also for a variety of municipal services.

It may be that the city can support only a certain level of employment of nonresidents without unacceptable costs, just as available services and facilities can support only a certain residential population if environmental standards are to be maintained. Transportation planning can be used to guide, shape and control growth itself and should therefore relate to the issue of growth. However, the exact effects of growth in terms of costs and benefits and what should be done to prevent undesirable results are not clearly understood at this time. What is a desirable level of employment is difficult to assess; little is known about the consequences either of allowing unlimited expansion or of attempting to limit growth. For this reason a consensus on this issue is difficult to achieve. The Plan for Transportation will require changes as knowledge of these factors improves and as public agreement on values is more clearly defined.

The assumption of this Plan is that, until an optimum employment level is determined, the City should assess each new transportation project on the basis of the ability of the transportation system to accommodate additional commuter travel and the impact on the quality of San Francisco's environment. To this end the Plan assumes that all additions to the commuter load as a result of job growth in the city should be accommodated by public transit. Consequently the Plan does not recommend new facilities which would increase the number of cars entering the city. Automobiles cannot be the primary means of commuter travel. Even without further growth in demand, increased transit use is required to alleviate the congestion and undesirable side-effects of commuter travel through the city's neighborhoods.

RESIDENT TRAVEL DEMAND

Information on current citywide resident travel needs and desires is incomplete, although the Department of Public Works has collected

substantial data on specific types of travel. Assumptions as to future demands can, however, be generalized. The chief trend will be an increase in the number of trips by individuals for shopping, recreation, entertainment and other travel not related to employment. Rising incomes and increased leisure time will be the basis for growth in non-work travel, as in the past. Most of these trips occur during the non-peak hours with destinations outside downtown and even outside the city, both on weekdays and on weekends. Weekend recreational travel, especially, will continue to grow rapidly.

At present from 70 percent to 90 percent of this non-work travel is by automobile. If this pattern continues, as is likely for some time, automobile traffic during the non-peak hours and on weekends will increase faster than during peak hours. Although streets built to peak hour capacities link downtown with districts in the city, the same kind of capacity often does not exist for interdistrict traffic. As a result, congestion and lengthy travel times may become more serious for crosstown travel than for travel to downtown. It is doubtful that the use of automobiles to satisfy most or all of this travel demand can be accommodated without unacceptable environmental costs and losses in housing and business space necessitated by street widenings or freeway construction. Public transit must be expanded to accommodate this travel need, in addition to the peak-hour commuter function.

FINANCING AND TECHNOLOGY

No radical change in transportation technology is expected in the next decade, although improvements taking advantage of existing industrial techniques, as in BART, will occur. The basic requirements of transportation systems, in terms of network organization, space consumption, power sources, and speed, probably will not change. Developments such as individualized air transport or computerized capsules which allow combined private-public movement systems would considerably alter

the basis for transportation planning, but it cannot be assumed that these will prove feasible or useful in the near future in urban areas. It is still reasonable to plan for systems requiring normal rights-of-way, a choice between private or shared vehicles, electric or gasoline power, and normal terminal and collection-distribution requirements. One breakthrough that should be expected is the development of electrically powered wireless busses.

In the case of finance, an accelerated shift of Federal and State resources from the massive expenditures of the last two decades on highways to a greater emphasis on mass transit is anticipated. It is also likely that increased attention will be paid to the needs for good intracity mass transit in addition to commuter services. Federal and State expenditures have weighted transportation decisions at all levels of government too heavily in favor of automobile transportation. The resulting imbalance must now be corrected.

Even with further assistance from Federal and State government, San Francisco will have to finance a large portion of transit improvements itself. In some cases new facilities will be made very expensive by the necessity of below-grade construction to protect the environment. It will be essential to conserve resources by making the best possible use of existing facilities, making the street system serve more functions, making the fullest use of the existing inventory of transit vehicles, and encouraging private enterprise to supplement government action, especially in the areas of freight, delivery systems, pedestrian movements, and parking. It will also be important to assure that nonresidents coming to the city pay their fair share of the costs of facilities provided by the City.

THE ROLE OF GOVERNMENT

All levels of government have long been involved in transportation planning and development, but this is especially the case at the local level. The City builds and maintains the

streets, operates the transit system, builds parking facilities and runs the airport. The reason for government involvement and control is that in a fundamental sense all transportation is public: common facilities must be provided.

A division of transportation responsibilities among governments by level and area is possible, but it is beginning to seem less useful to allocate transportation functions by mode or facility among separate agencies within one level of government. In the Bay Area and in San Francisco there are a multiplicity of agencies responsible for various aspects of transportation operations. In the City, responsibilities are shared by the Public Utilities Commission, the Department of Public Works, the Police Department, the Airports Commission, the Port Commission, the Parking Authority and the Department of City Planning. Each of these agencies not only has some part of the transportation function but also has many other responsibilities. More coordination is required; reorganization and consolidation of transportation functions would be desirable as a part of a general restructuring and streamlining of City government. Coordination of transportation planning with land use planning and development is especially important.

SUMMARY OF OBJECTIVES AND

GENERAL OBJECTIVES AND POLICIES

OBJECTIVE 1
MEET THE NEEDS OF ALL RESIDENTS AND VISITORS FOR SAFE, CONVENIENT AND INEXPENSIVE TRAVEL WITHIN SAN FRANCISCO AND BETWEEN THE CITY AND OTHER PARTS OF THE REGION.

POLICY 1
Involve citizens in planning and developing transportation facilities and services, and, in further defining the objectives and policies as they relate to district plans and specific projects.

POLICY 2
Give priority to public transit as the means of meeting San Francisco's transportation needs, particularly those of commuters.

POLICY 3
Coordinate regional and local transportation systems and provide for inter-line transit transfers.

POLICY 4
Ensure choices among modes of travel and give priority to each mode when and where it is most appropriate.

POLICY 5
Assure expanded mobility for the disadvantaged.

POLICY 6
Develop a financing system for transportation in which funds may be allocated without unnecessary restriction for priority improvements according to established policies.

POLICY 7
Seek means to reduce peak travel demands.

OBJECTIVE 2
USE THE TRANSPORTATION SYSTEM AS A MEANS FOR GUIDING DEVELOPMENT AND IMPROVING THE ENVIRONMENT.

POLICY 1
Support and strengthen regional efforts toward a city-centered region through development of the regional rapid transit system.

POLICY 2
Use transportation improvements in the city as catalysts for desirable development, and coordinate new facilities with public and private development.

POLICY 3
Reduce pollution and noise.

POLICY 4
Design and locate facilities to preserve the natural landscape and to protect views.

POLICY 5
Organize the transportation system to reinforce sense of community identity, improve linkages among interrelated activities and provide focus for community activities.

MASS TRANSIT PLAN

OBJECTIVE 1
GIVE FIRST PRIORITY TO IMPROVING TRANSIT SERVICE THROUGHOUT THE CITY, PROVIDING A CONVENIENT AND EFFICIENT SYSTEM AS A FEASIBLE ALTERNATIVE TO AUTOMOBILE USE.

POLICY 1
Improve speed of transit travel and service by giving priority to transit vehicles where conflicts with auto traffic occur, and by establishing a transit preferential streets system.

POLICY 2
Intensify overall transit service in the "central area."

POLICY 3
Improve interdistrict and intradistrict transit service.

POLICY 4
Keep fares low enough to obtain consistently high patronage and encourage more off-peak use.

POLICY 5
Clarify transit routing and establish "transit centers."

POLICY 6
Maintain taxi service adequate to meet the needs of the city and to keep fares reasonable.

POLICY 7
Consider possibilities for supplementary, privately operated transit services.

POLICY 8
Establish frequent and convenient transit services to major recreational facilities and provide special service for sports, cultural and other heavily attended events.

OBJECTIVE 2
DEVELOP TRANSIT AS THE PRIMARY MODE OF TRAVEL TO AND FROM DOWNTOWN AND ALL MAJOR ACTIVITY CENTERS.

POLICY 1
Build and maintain rapid transit lines from downtown to all suburban corridors and major centers of activity in San Francisco.

POLICY 2
Where significant transit service is provided by buses, bridges and freeways should have exclusive bus lanes.

POLICY 3
Provide transit service from residential areas to major employment centers outside the downtown area.

POLICY 4
Make future rail transit extensions in the city compatible with existing BART or Muni rail lines.

POLICY 5
Continue ferries and other forms of water-based transportation as an alternative mode of travel between San Francisco and the North Bay.

THOROUGHFARES PLAN

OBJECTIVE 1
ESTABLISH A THOROUGHFARES SYSTEM IN WHICH THE FUNCTION AND DESIGN OF EACH STREET ARE CONSISTENT WITH THE CHARACTER AND USE OF ADJACENT LAND.

POLICY 1
Divert through automobile and truck traffic from residential neighborhoods onto major and secondary thoroughfares and limit major thoroughfares to non-residential streets wherever possible.

POLICY 2
Design streets for a level of traffic that will not cause a detrimental impact on adjacent land uses.

POLICY 3
The existing vehicular capacity of the bridges, highways and freeways entering the city should not be increased and should be reduced where possible.

POLICY 4
Discourage nonrecreational and nonlocal travel in and around parks and along the shoreline recreation areas.

OBJECTIVE 2
PROVIDE FOR CONVENIENT AND SAFE MOVEMENT AMONG DISTRICTS IN THE CITY DURING NORMAL TRAVEL PERIODS.

D POLICIES FOR TRANSPORTATION

POLICY 1
Eliminate unnecessary cross traffic conflicts and improve traffic flow along major thoroughfares.

POLICY 2
Promote increased traffic safety, with special attention to hazards that could cause personal injury.

OBJECTIVE 3 PROVIDE SAFE AND PLEASANT SPACE FOR PEDESTRIANS.

POLICY 1
Widen sidewalks where intensive commercial, recreational, or institutional activity is present and where residential densities are high.

POLICY 2
Retain streets not required for traffic for pedestrian circulation, open space use, and density control.

POLICY 3
Ensure convenient and safe pedestrian crossings.

POLICY 4
Partially or wholly close certain streets not required as traffic carriers for pedestrian use or open space.

OBJECTIVE 4 ALLOW FOR THE SAFE USE OF THE BICYCLE AS A MEANS OF TRANSPORTATION AND RECREATION.

POLICY 1
Establish bicycle routes between major recreation areas, residential areas and major work centers.

POLICY 2
Integrate separate bicycle rights-of-way when feasible and desirable in new street development and design other bicycle routes to be compatible with the street and the purpose of the particular bicycle route.

POLICY 3
Encourage accommodation of bicycles on inter-regional transit facilities.

DOWNTOWN TRANSPORTATION PLAN

OBJECTIVE 1 PROVIDE FOR THE ROLE OF DOWNTOWN AS THE PRIMARY FINANCIAL AND ADMINISTRATIVE CENTER FOR THE REGION.

POLICY 1
Improve the downtown pedestrian circulation system, especially within the downtown core.

POLICY 2
Encourage short-term use of parking facilities adjacent to the downtown core.

POLICY 3
Provide needed additional short-term parking facilities in peripheral locations around the downtown core, adjacent to major thoroughfares.

POLICY 4
Develop shuttle transit systems to supplement trunklines for travel within the greater downtown area.

POLICY 5
Encourage the private sector to provide additional pedestrian space in new developments.

POLICY 6
Organize and control traffic circulation to reduce congestion in the core caused by through traffic and to channel vehicles into peripheral parking facilities.

OBJECTIVE 2 PROVIDE CONVENIENT AND HIGH-CAPACITY LOADING POINTS FOR TRANSIT TRAVELERS.

POLICY 1
Provide for commuter bus loading, if possible, at off-street terminals; where this is not possible, special curbside loading areas should be provided at non-congested locations.

POLICY 2
Make convenient transfers possible by coordinating local and regional transit systems in common or nearby terminals.

OBJECTIVE 3 IMPROVE FACILITIES FOR FREIGHT DELIVERIES AND BUSINESS SERVICES.

POLICY 1
Require off-street facilities for freight loading and service vehicles in all major new developments and seek opportunities for new facilities for old buildings.

POLICY 2
Encourage consolidation of freight deliveries and nighttime deliveries to produce greater efficiency and reduce congestion.

POLICY 3
Provide short-term loading spaces on the street for

small deliveries and essential services, with strict enforcement.

POLICY 4
Prohibit new sidewalk elevators in high pedestrian-use areas.

CITYWIDE PARKING PLAN

OBJECTIVE 1 PROVIDE PARKING FACILITIES IN RESIDENTIAL AREAS WITHIN THE CAPACITY OF THE CITY'S STREET SYSTEM AND LAND USE PATTERNS.

POLICY 1
Relate off-street parking requirements in new housing to expected vehicle ownership.

POLICY 2
Use existing street space to increase residential parking where off-street facilities are inadequate.

OBJECTIVE 2 INCREASE SHORT-TERM PARKING FACILITIES IN NEIGHBORHOOD SHOPPING AREAS AND NEAR MAJOR INSTITUTIONAL AND RECREATIONAL FACILITIES.

POLICY 1
Develop off-street parking facilities in neighborhood shopping areas, especially those serving low-density communities.

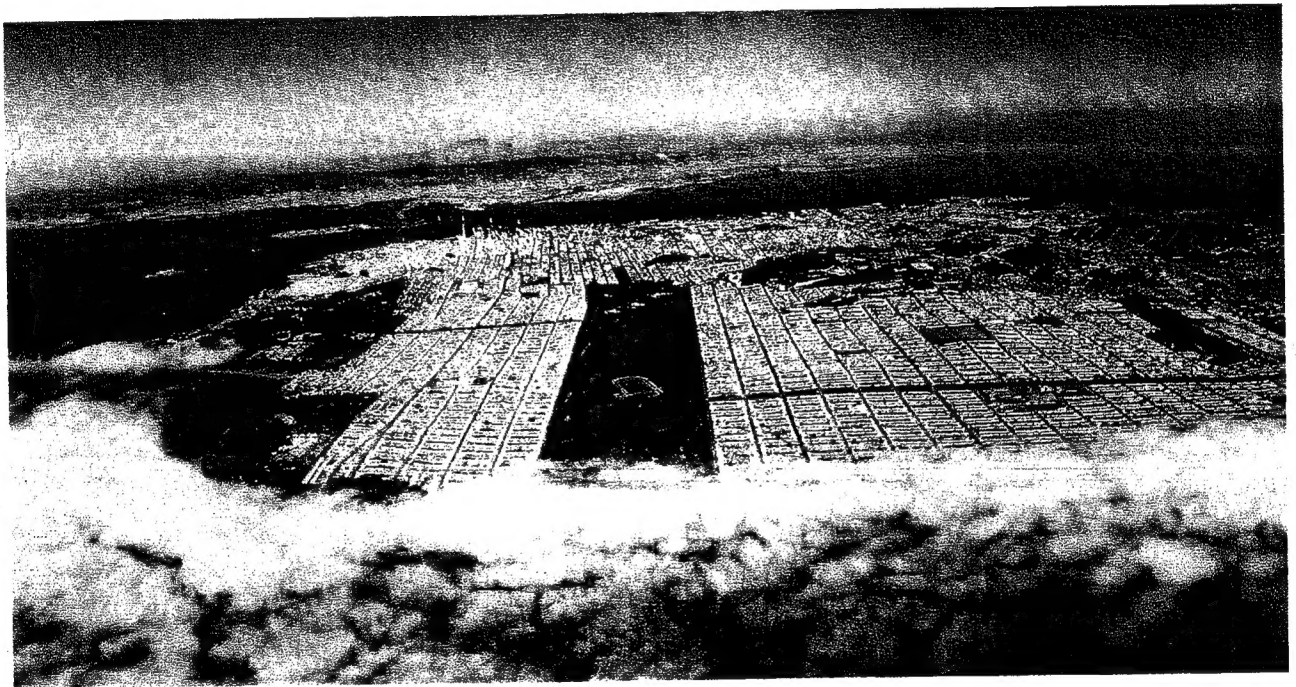
POLICY 2
Locate parking garages near shopping areas and adjacent to major entertainment, recreation and institutional facilities.

OBJECTIVE 3 PROVIDE CONVENIENT AND SAFE PARKING FACILITIES FOR BICYCLES.

POLICY 1
Provide for bicycle parking where appropriate in conjunction with automobile parking.

POLICY 2
Provide bicycle parking facilities in major new construction, such as office buildings, shopping and medical centers and residential complexes.

POLICY 3
Provide for secure bicycle parking in conjunction with parks and recreation facilities.



8 TRANSPORTATION

GENERAL OBJECTIVES AND POLICIES

OBJECTIVE 1 MEET THE NEEDS OF ALL RESIDENTS AND VISITORS FOR SAFE, CONVENIENT AND INEXPENSIVE TRAVEL WITHIN SAN FRANCISCO AND BETWEEN THE CITY AND OTHER PARTS OF THE REGION.

The City's first responsibility in the planning and operation of its transportation system is to provide the mobility necessary to its residents in pursuing a wide range of opportunities for work, education, recreation and contact with others. The City must also provide for the many persons who come to San Francisco for work and pleasure and who contribute to the life of San Francisco.

Residents and visitors present a formidable array of demands for transportation services and facilities. Since all transportation facilities must by their nature be shared, at least in part, the transportation system can meet each individual's special needs only to a limited extent. A balance must be struck between the ultimate goal of providing convenient travel for all people to their desired destinations and the costs, both monetary and environmental, that such a transportation system might require.

Policy 1
Involve citizens in planning and developing transportation facilities and services, and in further defining objectives and policies as they relate to district plans and specific projects.

Citizen involvement in all planning is essential. At least three different levels of citizen participation can be recognized in transportation planning. First, citywide participation is required for decisions on citywide problems, policies, and facilities. Almost all major improvements have citywide implications and should be subject to citywide discussion and debate. Second, most citywide facilities have some special impact on a particular part of the city, and therefore on the residents and businesses in that area. Residents should participate actively in the specific design of these facilities, even though some of the basic decisions have been made on a citywide basis. Third, some improvements and changes have only very localized impacts and, in such cases, the residents of the affected area should be more directly involved in planning decisions.

Policy 2
Give priority to public transit as the means of

meeting San Francisco's transportation needs, particularly those of commuters.

In order to maintain a desirable living and business environment in San Francisco, the use of mass transit must assume a high priority to ensure mobility for commuters and residents alike. Mobility is ideally provided by a multi-modal system, but where a choice must be made to either provide public transit or accommodate the private automobile, public transit should receive the priority.

Improvements or additions to the city's transportation system should involve investment in permanent mass transit facilities and equipment, and street improvements designed to facilitate transit movement. Street improvements designed to facilitate automobile movement should be limited to those that at minimum expense can ensure safe automobile travel.

Policy 3
Coordinate regional and local transportation systems and provide for interline transit transfers.

Transportation facilities are interdependent, and efforts should be made to ensure an efficient system by coordination of local and regional efforts. The regional and local transit systems must be closely linked to provide for transfers. Similarly, regional highways and freeways must be integrated with the local street system. Costly mistakes and service redundancies can be avoided by advance planning and agreement among the many agencies involved in transportation planning affecting San Francisco and the Bay Area.

All transit should provide free transfers between routes for travel within the city, although fare increments are justified for travel outside the city by BART, ferry or bus. A transfer arrangement should be made among BART, Muni and other systems to allow for transfers from regional to city systems at a reasonable incremental cost.

Policy 4
Ensure choices among modes of travel and give priority to each mode when and where it is most appropriate.

San Francisco and the Bay Area have various means of travel: automobile, bus, streetcar, taxi, cable car, ferry, railroad and BART. Walking and bicycling are used by many people.

Flying is occasionally used as a means of intra-regional travel. Each mode of travel has special advantages or disadvantages for certain types of trips and for certain origins and destinations. The least costly or most convenient means to satisfy travel demand is not necessarily the best in the context of comprehensive planning: cost or convenience must usually be balanced against effects on the environment and impact on land use and development patterns.

A multimodal transportation system preserves a wider range of choice and satisfies a larger number of people's transportation needs than a single mode. However, there are certain types of trips in the city and region which would favor a single mode: for example, rail rapid transit to serve commuters between the region's three major city centers and the airports. In those instances, priority should be established in accordance with that mode's superiority in satisfying travel needs and other elements of the Comprehensive Plan, including housing, recreation and urban design policies. Criteria are set forth below for the major means of travel.

Policy 5
Assure expanded mobility for the disadvantaged.

Expansion of opportunities for the poor and the underemployed for work, education and recreation depend to a large extent on the adequacy of the transportation system in serving their needs and on the cost of travel to them. The transportation system must be used in part as a tool for improving the situation of less advantaged residents by providing inexpensive and convenient service to areas of growing employment, as well as to educational institutions, medical services and recreation facilities.

Policy 6
Develop a financing system for transportation in which funds may be allocated without unnecessary restriction for priority improvements according to established policies.

Federal, State and even local financing available for transportation is generally restricted to certain modes of transportation or to certain kinds of improvements. There are funds earmarked for highway improvements, for rapid transit, and for local streets.

Maintenance and development of a multi-modal transportation system responsive to changing travel demands requires that funds

be available for allocation according to the need for specific projects. To maintain flexibility, taxes and funds should not be restricted to a specific type of improvement for long periods of time.

Policy 7

Seek means to reduce peak travel demands.

Peaking of travel demands during "rush hours" causes congestion and overcrowding

and requires excess capacity for both transit and automobiles relative to normal needs. Attempts should be made to forestall additional peak load increases. Administrative devices such as staggered work hours, encouraging shoppers and visitors not to travel during peak hours, altering school hours, and implementing differential bridge tolls would spread the demand over a longer period of time and permit more efficient use of the transit system.

CRITERIA FOR MASS TRANSIT PRIORITY

Mass transit should be given priority for the following kinds of trips and/or in the described areas:

1. For work trips generally within San Francisco and other densely developed parts of the region, especially to all major employment centers.
2. For intercity trips between core areas of major cities and for travel to core areas in general.
3. For trips occurring generally during periods of high travel demands.
4. Where demand for travel between any two or more relatively compact or

densely developed areas is high.

5. In areas where large numbers of people with limited means or low automobile ownership reside.
6. Where travel demand exceeds the capacity of an area to absorb more vehicular traffic without substantial environmental damage or where further capacity for automobile movement or storage is very costly.
7. Where required or useful to stimulate development.
8. For trips to major recreation areas and to sports, cultural and other heavily attended events.

CRITERIA FOR AUTOMOBILE PRIORITY

Automobiles should be given priority for the following kinds of trips and/or in the described areas:

1. For trips occurring where transit is too inconvenient or not available, and for trips that by their nature are not adaptable to transit.
2. For intraregional trips outside the major cities and for intercity trips between non-core areas of the major cities.

3. For work trips from outlying low-density residential areas to outlying places of employment.

4. Where business travel requires the use of an automobile.

5. In areas having the capacity to absorb additional vehicular traffic without substantial environmental damage or conflict with land uses and where transit would be prohibitively costly in relation to the number of riders served.

CRITERIA FOR PRIORITY FOR WALKING, BICYCLING, OR SHORT-DISTANCE TRANSIT VEHICLES

Walking, bicycling, or short-distance transit vehicles should be given priority for the following kinds of trips and/or in the specified areas:

1. In parks and other recreational areas, and where slow movement, bicycling or walking is part of a recreational experience or necessary to preserve the natural environment.
2. Where concentration of activity is so high that more convenient access

among interrelated activities may be achieved by walking or limited distance "people-movers" than by other modes.

3. For short trips between residences and neighborhood convenience shopping and recreational facilities, and for intra-neighborhood visiting and socializing, where walking or neighborhood-oriented, short-distance transit vehicles (such as jitneys) provide a quick and convenient means of travel.

OBJECTIVE 2 USE THE TRANSPORTATION SYSTEM AS A MEANS FOR GUIDING DEVELOPMENT AND IMPROVING THE ENVIRONMENT.

The use of a transportation system to guide the development and improvement of the city and the region is the necessary counterpart to its function in providing mobility for residents. Mobility is not itself an ultimate goal; people only travel when there are places to which they want to go and activities in which they want to engage. The transportation system should be used to ensure the preservation or creation of desired activities and facilities. Travel needs cannot be satisfied without consideration of other elements of city life. The modes of transportation used, as well as the location of routes and design of the system, have a large influence on development patterns and the quality of the overall environment. There must be recognition of the system's impact and conscious design and use of transportation improvements to facilitate desirable change and to preserve what is good.

Policy 1

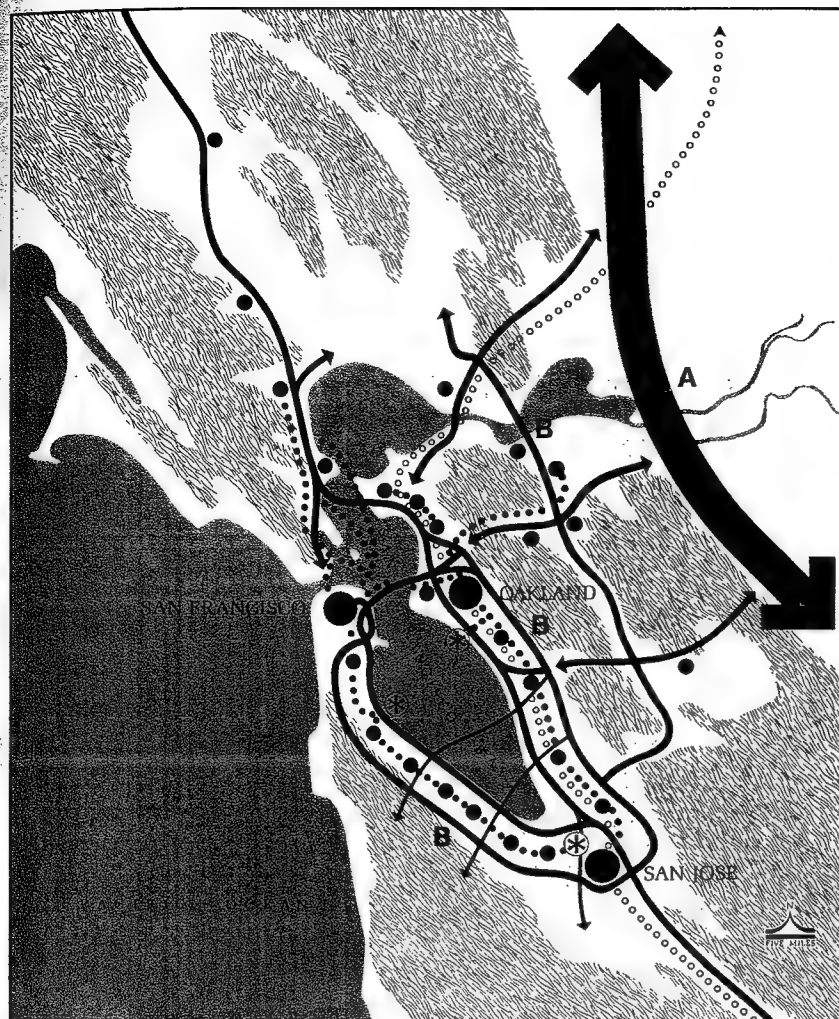
Support and strengthen regional efforts toward a city-centered region through development of the regional rapid transit system.

The development of an extensive network of rapid rail transit linking the major centers of the region is required if a regional, city-centered plan is to be achieved. Care must be taken to locate routes so that the transit system itself will encourage more intensive growth in existing cities or the development of well-planned new cities. Highways should also be located and designed to avoid encouraging scattered, unplanned patterns of growth.

Policy 2

Use transportation improvements in the city as catalysts for desirable development, and coordinate new facilities with public and private development.

Major transportation improvements, such as the new BART stations in San Francisco, may be expected to generate changes in land uses and developments geared to take advantage of the new access provided. Public and private improvements and developments should be coordinated with transportation projects in advance to ensure that advantage is taken of opportunities afforded. Transportation improvements should be located and designed to support desirable development or services recommended in other elements of the Comprehensive Plan. Development should be regulated, however, so that it will be compatible with the areas surrounding new stations.



REGIONAL TRANSPORTATION POLICIES

- CITY CENTER
- MAJOR REGIONAL HIGHWAY
- ▨ MOUNTAINS
- RAPID TRANSIT
Interregional and Regional
- ★ REGIONAL AIRPORT

A Major interregional and interstate automobile and truck movements should occur east of the metropolitan area, on the main spine of the Interstate Highway System.

B Regional highways should provide access among parts of the region, generally on the periphery of city centers.

C Intercity and interregional rail and bus terminals, but not airports, should be located in city centers.

D The regional rapid transit system should provide direct access from city centers to other city centers and to all regional airports.

Policy 3 Reduce pollution and noise.

Gasoline-powered automobiles and diesel buses pollute the air and generate substantial noise, in comparison with electric vehicles. The City has long been committed to transit powered by electricity, and this commitment has maintained a high level of environmental quality. The use of automobiles for travel and of motor coaches for mass transit must be limited. Technological changes may be forthcoming which will lower pollution. But until they are available the City should extend its commitment to an electrical transit system. Future City programming should work toward noise tolerance ordinances and other noise control actions, both by administrative and operational means. For instance, where it is not feasible to use the existing electrical transit vehicles, diesel buses should be replaced by quieter and less polluting transit vehicles. Another example is the placement of stop signs in relation to topography to avoid substantial noise caused by acceleration and deceleration.

Policy 4 Design and locate facilities to preserve the natural landscape and to protect views.

The Embarcadero Freeway has become for San Franciscans a symbol of insensitivity to the landscape in the design of transportation facilities. Its abrupt termination has become a symbol of San Franciscans' determination to preserve the natural beauty of the city. Care must be taken to ensure that street and transit improvements are made to enhance the beauty of the city and to protect views of the Bay, the Ocean and the hills.

Policy 5 Organize the transportation system to reinforce community identity, improve linkages among interrelated activities and provide focus for community activities.

The manner in which the transportation system is organized influences patterns of community association and neighborhood physical identity. Transportation decisions may therefore contribute to or undermine social and environmental stability. Through traffic routes should not split neighborhoods or pose insuperable barriers to movement among them. Street design and location of parking should contribute to the establishment of pedestrian-oriented neighborhood centers where residents may congregate. Major transit routes and specific feeder systems should be located to provide good access to and from neighborhood centers for nearby residents.

MASS TRANSIT PLAN

OBJECTIVE 1 GIVE FIRST PRIORITY TO IMPROVING TRANSIT SERVICE THROUGHOUT THE CITY, PROVIDING A CONVENIENT AND EFFICIENT SYSTEM AS A FEASIBLE ALTERNATIVE TO AUTOMOBILE USE.

San Francisco has one of the best and most extensive transit systems for a city of its size. Nevertheless, the City should work for an even better system. Without further mass transit improvements, the objectives of the Transportation Plan and of other elements of the Comprehensive Plan cannot be achieved. It is recognized that travelers cannot be diverted from automobiles to transit unless transit provides equal or better service. It is also recognized that consistently high patronage must be obtained to justify the costs of a good transit system. Transit must take the lead in attracting travelers by offering the quality of service desired; one test of the service is the level of patronage achieved, another is its public image.

If residents are to have access by transit to desired destinations, service must be extended to within a reasonable walking distance of their homes. In addition, transfers should be minimal, as the need to transfer is a recognized deterrent to transit usage. In general, one-fourth mile should be the greatest walking distance necessary to reach a transit stop. Where topography makes even this distance too great, the intervals should be less.

Policy 1 Improve speed of transit travel and service by giving priority to transit vehicles where conflicts with auto traffic occur, and by establishing a transit preferential streets system.

Transit speed is presently slower than auto speed due to passenger stops and street congestion. If transit speed is to be improved without reduced convenience of access to transit, conflicts between automobiles and transit must be eliminated as much as possible. Substantial improvement can and should be achieved by giving priority to transit through the use of exclusive lanes and/or by equipping

buses and trolleys with devices to trigger lights in their favor at intersections. Other actions should include restricting autos from streetcar and cable car tracks and eliminating automobile turning movements which conflict with transit vehicles.

Policy 2 Intensify overall transit service in the "central area."

That part of the city which is approximately east of Castro-Divisadero and north of Army Street houses half of the population and 80 percent of the city's employment. More travel occurs to and within this area than any other; traffic and pollution levels are highest, and the streets are more congested. It is appropriate to give highest priority to an intensification and enhancement of transit service within this area. There should be a fine grid of transit routes with frequent service, modified to adapt to topographical conditions and connecting to the rapid transit lines, with special lines and vehicles for shopping, tourist and recreational trips superimposed to provide added service and an especially pleasant form of travel.

Policy 3 Improve interdistrict and intradistrict transit service.

Over 80 percent of Muni transit vehicles provide service to and from downtown because of the enormous demand on the transit system by downtown workers and shoppers, especially during peak hours. However, during non-peak hours, while travel to downtown for shopping and entertainment is still substantial, there is much more travel between and within districts in the city. Due to increased leisure time and incomes, this is the fastest growing transportation demand.

Policy 4 Keep fares low enough to obtain consistently high patronage and encourage more off-peak use.

Transportation is a public service not unlike street lighting, sewage service or fire protection. Nearly all transportation is subsidized to some degree with public funds. It is no more reasonable to expect transit to "pay its way" with the fare box than it is to expect streets to pay their way. To charge directly for transit use, where only indirect taxes are imposed on automobile use, discourages transit use.

Where the transit system is not used to its full potential and patronage is lower than it might be, taxpayers are burdened by fixed costs which exceed the benefits provided. Especially during non-peak hours, the transit system has excess capacity. First priority should be given to encouraging substantially greater patronage for weekday travel between 9:30 a.m. and 3:30 p.m. and between 6:30 p.m. and 6:30 a.m. and for travel on weekends.

Policy 5 Clarify transit routing and establish "transit centers."

A major effort should be made to make clear to residents and visitors the transit services available in San Francisco.

At places of significance to transit, such as transfer points between major routes or points of access to the rapid transit system, "transit centers" should be established. As many routes as possible should go through these centers to facilitate transfers. To help people make better use of the system, complete route information, and where needed, personal assistance, should be provided at transit centers.

Each stop should be clearly identifiable. At transit stops, route information including location of transfer points, should be made available. In addition, each transit vehicle should have complete route information clearly posted.

Policy 6 Maintain a taxi service adequate to meet the needs of the City and to keep fares reasonable.

Taxis serve as an essential supplement to the transit system, not merely for tourists



TRANSIT PREFERENTIAL STREETS PLAN

- * REGIONAL TRANSIT TERMINAL
- TRANSIT CENTER
- TRANSIT STREET



Doyle Drive, Lombard Bay, North Point, Sansome, and Battery Streets should be designed to facilitate the movement of the Marin commuter buses.



but for many residents and workers in the city who either do not have a car or find regular transit service inconvenient for a particular trip, or both. The elderly often rely on taxis for necessary shopping trips and for reaching medical facilities, as do many others without automobiles when transit is not available. Although taxis should continue to be regulated, competition should be encouraged for improved service and low fares.

Policy 7

Consider possibilities for supplementary, privately operated transit services.

For many years privately owned jitneys have operated in the Mission district, modeled on similar service successfully provided in Latin America. In some respects they are a

model of a good compromise between the necessary regularity of municipal buses and the on-call and door-to-door service provided by taxis. There are other areas of the city where private operators might find it profitable to provide such service for intradistrict and interdistrict travel, and they should be encouraged to do so.

Policy 8

Establish frequent and convenient transit service to major recreational facilities and provide special service for sports, cultural and other heavily attended events.

Public transit is now provided to major recreational areas (such as Golden Gate Park and the Zoo). Frequent and convenient service will make it much easier for those citizens who

do not own cars to reach these areas, encourage people with cars to leave them at home when going to the parks, and reduce congestion in the parks and adjacent neighborhoods. It also is appropriate to promote public transit as the primary mode of transportation to sports, cultural and other heavily attended events.

OBJECTIVE 2

DEVELOP TRANSIT AS THE PRIMARY MODE OF TRAVEL TO AND FROM DOWNTOWN AND ALL MAJOR ACTIVITY CENTERS.

The automobile cannot serve as the primary means of travel to and from downtown. An alternative means of equal convenience and greater efficiency is required, not only to

downtown, but also among all major activity centers. While good, direct service is available from almost all parts of the city to downtown so that transit is the dominant means of travel during the rush hours, travel is often slow and vehicles are very crowded during the rush hours. Crowding can never be eliminated completely. However, it is important for continued patronage and rider comfort that trunk-lines serving outlying districts provide seats for all passengers and that short-term standees be allotted adequate space. Travel to downtown should be possible in less than 30 minutes from all parts of the city. This can be achieved by express buses, exclusive bus lanes, and construction of rapid transit lines such as the Muni Market Street subway.

The use of transit to travel from the suburbs to downtown and other major centers in the city can only become primary over the long run with the development of a good regional transit system connecting downtown to other parts of the region. BART, the first step in the development of this system, should be expanded.

Policy 1

Build and maintain rapid transit lines from downtown to all suburban corridors and major centers of activity in San Francisco.

The city and much of the region should continue to be committed to a transit-first policy with respect to intercity commuter travel. Rapid rail transit probably offers the most competitive service in relation to automobile travel as well as offering the highest capacities possible in transit service. The use of BART or any other line-haul rail system is dependent to a great extent on access to and from stations in outlying residential areas and employment centers. Well-planned suburban feeder systems should be provided.

Growth in air travel requires that city-to-airport travel be provided more efficiently than is possible with automobiles. As the downtown continues to strengthen its position as a financial center and cultural attraction, air travel tied to downtown will grow. The regional rapid transit system should include all regional airports to promote the most efficient use of these facilities and to relieve traffic congestion resulting from air travel growth.

Policy 2

Where significant transit service is provided by buses, bridges and freeways should have exclusive bus lanes.

Transit lines can provide more efficient service by operating on their own rights-of-way. These can be instituted on bridges, free-

RAPID TRANSIT SYSTEM CRITERIA

Although each rapid transit line will serve a corridor with different populations, activities, topography and travel characteristics, certain basic criteria should be established to ensure that the system will perform its necessary function as the major means of travel to downtown and other high activity centers. Each line should meet the following conditions:

- economic and social impacts within the guidelines for development established by other comprehensive plan elements;

- an exclusive right-of-way, with at least the most heavily congested portions of the trip in subway;

- frequent feeder service to rapid transit stations where residents served or destinations are beyond walking distance;

- stations within the city located generally at no greater than half-mile intervals, with some exceptions in low-density areas;

- stations to be located at primary destinations and transfer points;

- average operating speeds, including station stops, between 20 MPH and 30 MPH or approximately twice that of normal surface lines;

- sufficiently high capacity in seating to provide peak hour seated travel for all long-distance travelers (15 minutes in travel time or more);

- continuous service at frequent intervals.

These criteria should be taken as guidelines for the development of rapid transit lines; modifications can be made where necessary to accommodate the line to a particular area.

ways and thoroughfares leading into the city, such as on the Golden Gate Bridge and Waldo Grade.

Policy 3

Provide transit service from residential areas to major employment centers outside the downtown area.

Reverse commuting to areas other than downtown is increasing and places new requirements on the transit system. The proportion of city residents employed outside the city is increasing rapidly—from 6 percent in 1960 to 20 percent in 1970. The City should pursue means of providing this transit for residents where it is not available, such as to the southern Peninsula.

Policy 4

Make future rail transit extensions in the City compatible with existing BART or Muni rail lines.

In order to ensure potential linkages, interchange of vehicles and cost savings, new

rail rapid transit routes should be of the same basic type as either the BART or Muni systems, depending on the potential link. Other special systems, such as the cable cars or other limited service facilities, need not be identical in character.






Policy 5

Continue ferries and other forms of water-based transportation as an alternative mode of travel between San Francisco and the north bay.

For communities in Marin County, ferry or high-speed water craft offers an alternative means of travel to downtown. Whether bus or rail is the major transit mode to Marin, ferry service should be continued, as it offers an efficient and pleasant way to commute. It also provides a means to reduce weekend and summer automobile congestion in Marin's bay-side communities. As ridership and location warrant, water-based transportation should be developed to other locations in the Bay Area.



RAPID TRANSIT PLAN

-  RAPID TRANSIT LINE
-  SURFACE STREETCAR LINE
-  TRANSIT CENTER
-  COMBINED BART & MUNI SUBWAY STATION
-  MAJOR CROSSTOWN BUS ROUTE

* The final transit system form (subway, surface, or combination) should be determined after a thorough study considering economic, social, and environmental impacts on the neighborhoods and the requirements of transit to Marin County.

CLASSIFICATION OF ELEMENTS

RAPID TRANSIT LINE: mass transit operating on an exclusive right-of-way, either below, above or on the surface, without interference from traffic or pedestrians, achieving high speed and high capacity, generally electric vehicles on rails but may be self-propelled electric or combustion engines; regardless of vehicle type, outer portions of lines in low-density areas may leave exclusive right-of-way so that technically those portions of the route are not rapid transit.

LOCAL TRANSIT OR SURFACE TRANSIT: Mass transit operating with other traffic on city streets, expressways and freeways and subject to interference by other users of the streets, both vehicles and pedestrians; may be electric, gasoline or diesel buses.

SHORT-HAUL TRANSIT, SHUTTLE TRANSIT OR "PEOPLE MOVERS": service over short distances (less than two or three miles) intended to move passengers within congested areas and to facilitate access to and from parking, transit and other terminals.



TRUNKLINE: a rapid transit line or express bus route which serves travel from one area to another area of the city or region, requiring transfer at origin or destination for most passengers to a feeder line.

TRANSIT CENTER: a major transfer point, usually including a rapid transit station; travelers should be able to travel in many directions from such a place and have information available on citywide routes.

FEEDER LINE: rapid transit service between destinations and stations, trunklines or express bus stops.

TRANSFER POINT: any point at which two or more transit lines moving in different directions cross.

TRANSIT STREET: an important street for transit operations where interference with transit vehicles by other traffic should be minimized.

DESIGN GUIDELINES

TRANSIT ROUTES

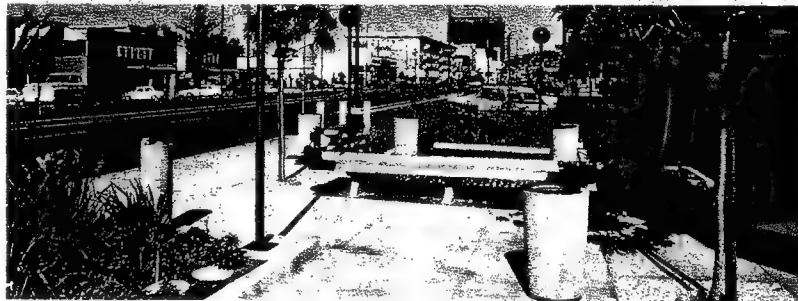
Major transit transfer locations called "transit centers" should be highly visible and identifiable; wherever possible, there should be adjacent space for shelter, information, amenities and off-street loading.

Special lighting should be used to identify transit stops.

Lines named for streets, such as the "Clement" bus, should stay on those streets as much as possible.

As many routes as possible should pass through "transit centers."

Routes should, to the extent possible, run in straight lines between well-known termini.



Access to all corridors should be available from each BART-Muni Market Street subway station.

Waiting areas should be extended into the parking lane and vehicle stops made in the right-hand traffic lane on major transit routes.

Graphic symbols and color coding should be used to identify specific transit routes or districts and places served.

Vehicles should be distinctively marked to identify the type of service they offer—local, express, shuttle, limited-stop.

THOROUGHFARES PLAN

OBJECTIVE 1 ESTABLISH A THOROUGHFARES SYSTEM IN WHICH THE FUNCTION AND DESIGN OF EACH STREET ARE CONSISTENT WITH THE CHARACTER AND USE OF ADJACENT LAND.

There should be a hierarchical system of streets functioning in accordance with the planned movement of vehicles. Street design, capacity and treatment should be a direct manifestation of the street's intended use in satisfying both present and prospective travel demand, and also its nontraffic purposes such as open space and pedestrian movement. It is recognized that in some cases it will be necessary to determine a maximum level of traffic for which street capacity will be provided, implying a tolerable level of congestion as a constraint, if other objectives of the City are to be attained.

Policy 1
Divert through automobile and truck traffic from residential neighborhoods onto major and secondary thoroughfares, and limit major thoroughfares to nonresidential streets wherever possible.

Major and secondary thoroughfares are to carry traffic among districts in the city. Local streets are intended only to provide access to and from homes and other uses within each neighborhood. To provide more efficiently for long-distance movements and to keep local streets free from heavy traffic, street design and traffic management should ensure the diversion of through traffic around neighborhoods. The Urban Design Plan indicates the application of this policy in more detail and designates "protected residential areas." Heavy truck traffic should be removed from residential streets and confined mainly to freeways and certain very limited nonresidential feeder streets.

Two forms of action are required: provision for through traffic on major thoroughfares and discouragement of it on local streets. To

the greatest extent possible land use bordering major thoroughfares should not be primarily residential. The following factors determine the selection of major and secondary thoroughfares:

1. the width of the right-of-way relative to traffic capacity required;
2. the extent of transit use on the street;
3. land uses bordering the street;
4. safety of the street for moderate- and high-speed traffic;
5. the relation of the street to the definition of the neighborhood by its residents;
6. the presence or absence of conflicts caused by driveways, parking, and deliveries to commercial uses.

In order to effectuate the policy to divert through traffic from neighborhoods, it is necessary that increased thoroughfare capacity be balanced by simultaneous reductions on local streets. Appropriate actions will ensure not only that traffic is channeled as intended but also that new usable open space is created and that the residential environment is enhanced.

Policy 2
Design streets for a level of traffic that will not cause a detrimental impact on adjacent land uses.

The need for traffic carriers must be balanced against the adverse effects of heavy traffic on the use of adjacent land and the quality of the environment. The needs of residents for peace and quiet, safety from harm, and useful open space must be given consideration. Each area and each street of the city have different characteristics which determine the level of traffic which can be absorbed without serious adverse impacts. The following factors should be the basis for a judgment on the acceptable levels of traffic on a specific street:

1. the distance between the curb and building line established by sidewalk width or setback;
2. the presence or absence of buffering between street and building in the form of landscaping, change in elevation, or similar condition;

3. the level of pedestrian traffic;
4. the proportion of the street which is residential in land use;
5. whether residences face the street;
6. the presence of hospitals, schools, parks, or similar facilities on or near the street.

The widening of streets at the expense of sidewalks or of setbacks should not occur where space is necessary for pedestrian movement, buffering from noise, useful open space and landscaping. This is especially true in densely populated neighborhoods with little public or private open space. No additional sidewalk narrowings, tow-away zones and one-way streets should be instituted in a residential neighborhood if the intention is to benefit the commuter to the detriment of the resident.

Policy 3
The existing vehicular capacity of the bridges, highways and freeways entering the City should not be increased and should be reduced where possible.

The established policy of limiting access into and through the city by automobiles should be maintained. This policy should work in conjunction with policies calling for the provision of mass transit for commuter travel to San Francisco. It is recognized that provision for further vehicular access into the city would conflict with the environmental objectives of the city, overload the city street system, and jeopardize the city's commitment to mass transit. This policy allows for the introduction of exclusive bus lanes on bridges, highways and freeways where these lanes are compatible with transit systems and will help provide better service.

Policy 4
Discourage nonrecreational and nonlocal travel in and around parks and along the shoreline recreation areas.

Streets in large parks, around small parks and along recreational parts of the shoreline should function primarily for access to recreational facilities and for scenic driving, not as thoroughfares. Heavy or fast traffic endangers

CLASSIFICATION OF ELEMENTS

FREEWAYS: limited access, very high capacity facilities; primary function is to carry intercity traffic; they may, as a result of route location, also serve the secondary function of providing for travel between distant sections in the city.



MAJOR THOROUGHFARES: cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways; these are routes generally of citywide significance; of varying capacity depending on the travel demand for the specific direction and adjacent land uses.



SECONDARY THOROUGHFARES: primarily intradistrict routes of varying capacity serving as collectors for the major thoroughfares; in some cases supplemental to the major thoroughfare system.

RECREATIONAL STREET: a special category of street whose major function is to provide for slow pleasure drives, cyclist and pedestrian use; more highly valued for recreational use than for traffic movement. The order of priority for these streets should be to accommodate: 1) Pedestrians, hiking trails or wilderness routes, as appropriate; 2) Cyclists; 3) Equestrians; 4) Automobile scenic driving. This should be slow and consistent with the topography and nature of the area. There should be adequate parking outside of natural areas.

COLLECTOR STREETS: relatively low-capacity streets serving local distribution functions primarily in large, low-density areas, connecting to major and secondary thoroughfares. To be identified in area plans.

LOCAL STREETS: all other streets intended for access to abutting residential and other land uses, rather than for through traffic; generally of lowest capacity.

RELATIONSHIP BETWEEN FUNCTION AND PHYSICAL DESIGN: no rigid design standards can be established on the basis of the functional categories established above, although higher capacities will generally be associated with freeways and major thoroughfares. Capacities must be determined on the basis of the level of traffic demand, the space available for traffic and the nature of the surrounding environment.



DESIGN GUIDELINES

MAJOR STREETS

Where residential uses abut on major and secondary thoroughfares, they should be screened visually and physically wherever possible.

A consistent pattern of trees at regular intervals should be used to identify major streets.

Extensive buffers should be used to separate busy thoroughfares from active pedestrian areas.

The brightness (apparent illumination) of street lighting should be greater than on residential streets and the color or hue different from that on residential streets.

Destination information should be concentrated on major streets with signs used to route traffic on the major streets system.

LOCAL RESIDENTIAL STREETS

Excessive traffic speeds and volumes should be restricted and discouraged by every means possible.

Where possible, vehicular access directly to and from local streets should be from other than major thoroughfares, e. g., via a secondary thoroughfare or collector street.

When alternate access is possible, residences should not access to major thoroughfares.

Local streets, other than collectors, should be primarily for access to residences and to serve for emergency vehicles; pedestrian-dominant streets with the maximum feasible amount of street space devoted to environmental amenities desired and needed by the residents.

Residential streets should be well-lighted without being excessively bright.

INTERSECTIONS

Street width, traffic controls, destination and route information and illumination should be maximized at the intersection of two major thoroughfares.

Two intersecting residential streets should have minimal roadway width, wide sidewalks and no change in illumination from that on the streets themselves.

Intersections of residential streets and major thoroughfares should be minimized; where they must intersect, cross and left-turn movements should be limited by curb alignments or medians.

pedestrians, cuts off access to recreation and reduces the pleasure of being in parks by causing noise, pollution and visual disharmony. Pedestrian entrances to parks should be at street intersections to the extent possible. Streets adjacent to or within parks and along the shoreline should to the greatest extent possible be designed and controlled to reduce their use as thoroughways. They should offer opportunities for leisurely, scenic driving consistent with pedestrian, equestrian and bicycle movements along and across the street.

**OBJECTIVE 2
PROVIDE FOR CONVENIENT AND SAFE
MOVEMENT AMONG DISTRICTS IN THE
CITY DURING NORMAL TRAVEL PERIODS.**

The primary purpose of those segments of the thoroughfares system designed for inter-district movements is to provide for efficient, convenient and safe travel, integrating the city into a functional whole. At the same time it is recognized that congestion can never be eliminated completely, especially during periods of peak demand. The intent is to provide a convenient vehicular system which functions well in meeting normal traffic demands.

**Policy 1
Eliminate unnecessary cross traffic conflicts
and improve traffic flow along major thorough-
fares.**

Excessive numbers of intersections on major thoroughfares reduce the average speed of traffic and encourage use of local streets for through movements. Intersections with local streets should be eliminated where possible to speed the flow of traffic on the arterials intended to carry the bulk of interdistrict travel and to reduce accidents. In some cases, where two major thoroughfares meet, it may be necessary to create grade separations to avoid conflicts. However, less costly measures to minimize this conflict should be used wherever possible.

The system of signal-light synchronization and sensors which detect cross-traffic at intersections should be expanded and modified to reduce congestion on major thoroughfares. At the same time, use of regulatory devices within residential areas will discourage through traffic when a good signal system is in effect on the major thoroughfares. Diagonal and perpendicular parking should normally not be allowed on major or secondary thoroughfares. Lane striping, curb cuts and service roads or lanes should provide for driveway access in a manner that will not conflict with through traffic flows.

**Policy 2
Promote increased traffic safety, with special
attention to hazards that could cause personal
injury.**

As overall traffic levels increase, the number of accidents also tends to rise. Many accidents occur even where speed of travel is relatively slow. Various measures can be taken to reduce accidents, especially those involving serious personal injury. In some cases redesign of the roadway and of intersections to reduce conflicts between vehicles and pedestrians is required; in others all that is necessary is to improve clarity of signs and of routing so that there is less driver uncertainty and hesitation.

**OBJECTIVE 3
PROVIDE SAFE AND PLEASANT SPACE
FOR PEDESTRIANS.**

Walking is a form of transportation which must be provided for, especially in neighborhoods for short trips to local commercial and public facilities and in business areas where many shoppers congregate. Sidewalks, malls and similar spaces provide not only for pedestrian movement but also for children's play, socializing among residents, window-shopping, and sitting and watching. Congestion occurs on sidewalks in high activity areas, just as it does on streets. Inadequacy of space creates inconveniences for those trying to pass through and those stopping to talk or look or rest.

**Policy 1
Widen sidewalks where intensive commercial,
recreational, or institutional activity is present
and where residential densities are high.**

In many high-activity areas of the city such as downtown, Fisherman's Wharf and North Beach, sidewalks are narrower than required for pedestrians. Where pedestrian traffic is high and through vehicular traffic is light or can be moved to alternate routes or reduced by transit improvements, some street space can be made into wider sidewalks, landscaped strips and sitting areas. Through traffic should be discouraged or eliminated to avoid conflicts which inconvenience drivers and pedestrians and may increase accidents. In high-density residential areas with little open space, wider sidewalks and small plazas should be created to provide more usable space as well as to discourage through traffic.

**Policy 2
Retain streets not required for traffic for pedes-**

**trian circulation, open space use, and density
controls.**

Proposals for street vacation often arise when a street no longer serves a necessary traffic function. Except in rare cases, street vacations for private ownership or use or for construction of public buildings should not occur where the street could serve as a valuable open space, would improve pedestrian circulation, or maintain control of development density consistent with assumptions underlying land use plans.

**Policy 3
Ensure convenient and safe pedestrian cross-
ings.**

Where streets are designed for high volumes or relatively fast movement of vehicles, adequate provision must be made for safe and convenient pedestrian crossings. This is especially important near schools, parks and hospitals, and in high-density residential areas. Wide streets should have adequately timed lights and median strips or islands at intersections to allow safe crossings. If grade separation of pedestrian and vehicular movement is necessary, the roadway should be depressed to maintain continuity of pedestrian paths wherever possible. If a change in pedestrian levels is required, ramps are preferable to stairs.

**Policy 4
Partially or wholly close certain streets not
required as traffic carriers for pedestrian use
or open space.**

Some streets in active shopping areas and in residential areas can be closed wholly or partially to vehicular traffic because the streets are not required for vehicular use, except possibly at infrequent intervals or during emergencies. Partial closings can be achieved by substantially narrowing the roadway or by installing temporary barriers during certain periods of the day. Doing so would open up the street for nontraffic uses, without its loss for emergency use or access to homes and businesses. In neighborhood shopping areas provision should be made concurrently for replacement of on-street parking spaces with off-street facilities.

OBJECTIVE 4
ALLOW FOR THE SAFE USE OF THE
BICYCLE AS A MEANS OF TRANSPORTA-
TION AND RECREATION.

The bicycle is finding increasing acceptance as a viable alternative to the automobile for work, shopping and recreation purposes. As streets become more congested, some people are finding that they can move about their cities and their neighborhoods more quickly, enjoyably and economically on bicycles. Bicycle use places a demand upon the City to integrate them into the transportation system.

Policy 1

Policy 1
Establish bicycle routes between major recreation areas, residential areas, and major work centers.

The use of the bicycle for recreation has always been popular. Bicycle paths have tradi-

tionally been located in parks where there is less conflict with auto use and where the relatively slower pace of the bicycle allows a more leisurely view of the environment. A network of bicycle routes between major recreation areas would permit a safe way to the parks for cyclists who wish to use park bike paths and also allow park users an alternative way of getting there. In addition, steps should be taken to insure that safe and direct routes are available to major work centers. By making biking a more safe and enjoyable transportation mode, the provision of bicycle paths can be an additional means of reducing auto congestion and parking problems.

Policy 2

Integrate separate bicycle rights-of-way when feasible and desirable in new street development, and design other bicycle routes to be compatible with the street and the purpose of the particular bicycle route.

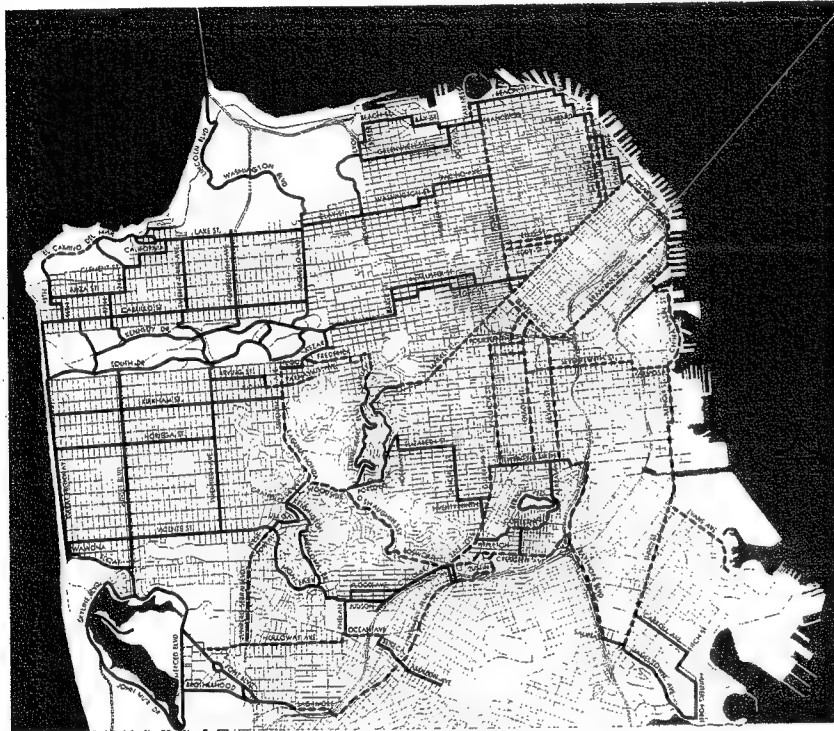
Separate rights-of-way are the best means of providing safe travel for cyclists. They are particularly desirable when routes are required along busy streets where the route is the best one available to a particular point.

In general, bicycle routes should be adequately marked, located away from major transit streets, where grades are not excessive, and where auto traffic is light. However, they should not be placed in conflict with pedestrian or equestrian rights-of-way.

Policy 3

Encourage accommodation of bicycles on interregional transit facilities.

The opportunity for cyclists to move about the Bay Area with their bikes by using interregional transit modes, such as the ferry, should exist. These transit modes should take steps to accommodate cyclists where possible.



BICYCLE PLAN

—— BICYCLE ROUTES

STREETS TO BE IMPROVED AS BICYCLE ROUTES

GUIDE TO THOROUGHFARES PLAN

NOTE: This section refers to the Thoroughfares Plan map. Except where indicated no increase in the vehicular capacity of any thoroughfare is intended.

Bay Front Drive

A new recreational drive along the northern shore of the Presidio is proposed to connect Marina Boulevard to Lincoln Boulevard.

Bay Street and North Point Street

A one-way pair is proposed to connect the Maritime Parkway with Marina Boulevard, providing a better route between the Marina and downtown and improved local circulation near Fisherman's Wharf.

Bernal Heights Boulevard

This boulevard should function as a recreational street, with emphasis on pedestrian and bicycle use and with minimal auto capacity.

Cross-over Drive

This connection in Golden Gate Park between Park- Presidio Boulevard and Nineteenth Avenue should be redesigned and realigned as a below-grade roadway. There should be no connection with John F. Kennedy Drive. The design should be limited to a capacity similar to Park- Presidio Boulevard and should be carefully aligned to avoid tree removal.

Doyle Drive

This road should be improved for greater safety; design capacity should be no greater than that of the Golden Gate Bridge less vehicles using Park- Presidio Boulevard.

Embarcadero Freeway

The elevated portion between Howard and Broadway and the Washington-Clay and Broadway ramps should be removed as soon as possible.

Franklin Street

If and when Van Ness Avenue is depressed for through traffic, the function of this street between Pine and Lombard should be only for local circulation.

Frederick Street

If Kezar Drive is undergrounded, this street would no longer be required for truck traffic and should be changed to a local street function.

Geary Boulevard

To the extent possible most east-west travel in the Western Addition and Inner Richmond should be channeled onto this street to divert traffic from nearby residential streets. Grade separations at key intersections and improved left-turn connections are desirable.

Gough Street

This street should not be widened or made unidirectional north of Pine Street.

Great Highway

The design capacity of this road should be reduced substantially to correspond with its recreational function; emphasis to be on slow pleasure traffic and safe pedestrian crossings.

Guerrero Street

Although Guerrero, Valencia and Folsom serve as major thoroughfares at the present, the completion of the Southern-Embarcadero Freeway to Beale and Main Streets, and BART to the airport, should be accompanied by steps to reduce through traffic and make these streets more compatible with residential uses. Guerrero Street should be redesigned as a local residential street as soon as possible after BART begins operations and the Southern-Embarcadero Freeway is completed to Main and Beale Streets.

Harney Way

An extension on fill is proposed to serve Candlestick Park and new residential and recreational development. Refer to South Bayshore Plan.

Hunters Point Freeway

On the assumption that the Southern Crossing is not built, a surface parkway with two moving lanes in each direction should be constructed along this route, designed to divert all truck traffic from the South Bayshore area.

John F. Kennedy Drive

Through, non-park traffic on this recreational drive should be eliminated.

Kezar Drive

This road should be undergrounded to restore the corner of the park to full recreational use; design capacity no greater than that of the Fell and Oak couple.

Laguna Honda Boulevard

Improve alignment for safety and transit access to Forest Hills Station within the present vehicular capacity.

Lombard Street

If and when Route 480 is built, Lombard may no longer be required to carry North Bay traffic. It would continue as a link between the Marina and downtown and possibly for some North Bay buses. At that time a reduction in the number of lanes should be considered to allow for increased parking and landscaping.

Mansell Parkway

For many years a recreational parkway has been proposed to provide some connection to McLaren Park from the South Bayshore and the Ocean View-Ingleside-Merced area. An improved connection to Jamestown Road to the east from Mansell and an extension of Mansell south to Geneva Avenue is proposed; the parkway should not be designed for heavy traffic. This street should accommodate a crosstown transit route.

Maritime Parkway

A new parkway, inland from the Embarcadero service road, is proposed from Howard Street to North Point Street to handle traffic from the Marina and Fisherman's Wharf to downtown.

Market Street

This street should be no more than six lanes between Van Ness and Castro, with pedestrian havens at intersections.

Nineteenth Avenue

This heavily trafficked street should ultimately be rebuilt as a parkway with the same capacity and similar design as Park- Presidio Boulevard. Simultaneous measures should be taken to eliminate through traffic on parallel streets.

O'Shaughnessy Boulevard

Functionally, this route must provide for crosstown movements; in design, it should remain a scenic-recreational drive, not intended for heavy traffic.

Parnassus Avenue

If the University of California Medical Center wishes to connect its campus on both sides of this street, the University should depress the roadway to maintain a through route for transit and vehicular traffic.

Pine Street-Bush Street

When the Richmond rapid transit line is built, priority should be given to reducing capacity and landscaping these residential streets west of Van Ness Avenue.

Quint Street

The unimproved section of this street between Third and Oakdale should be fully improved for industrial traffic to divert trucks from Third Street.

State Route 480

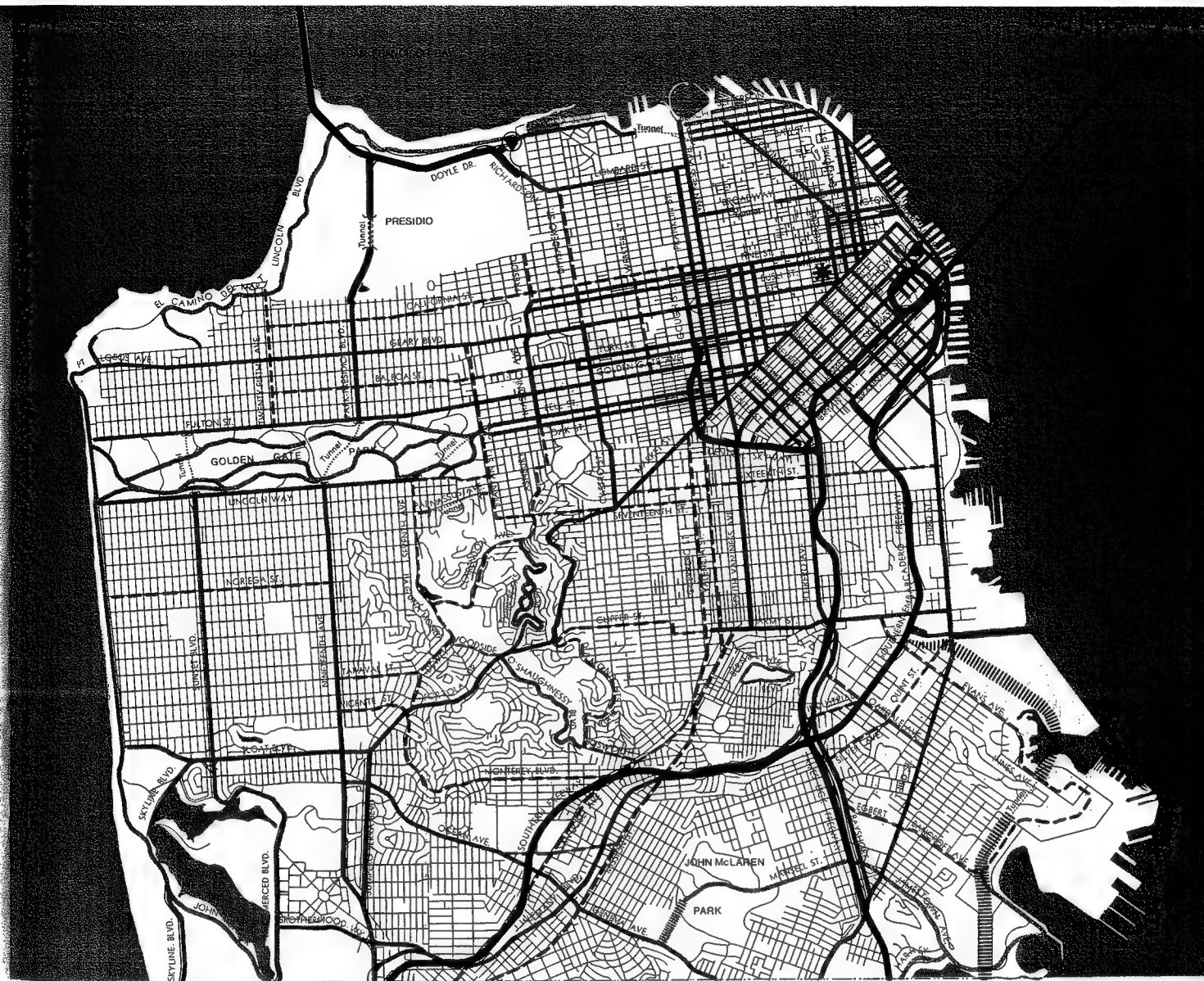
There is no proposal or recommendation to place a new freeway through the Northern Waterfront area to connect the Embarcadero freeway with the Golden Gate Bridge. The policy of this City is to discourage such a connection. However, should such a freeway or high-capacity, limited-access connection be necessary within the Northern Waterfront area, such a connection should be either entirely underground or substantially so and within existing or proposed rights-of-way as presented in the Northern Waterfront Plan. At this time, no proposal or recommendation should be accepted which would preclude the development of such a future facility.

Valencia Street





This street should act as a neighborhood collector street as soon as possible after BART begins operations and the Southern-Embarcadero Freeway is completed to Main and Beale Streets.

Van Ness Avenue

The possibility of depressing portions or all of Van Ness Avenue from the Central Freeway to Lombard in order to separate through traffic from local circulation should be studied.



THOROUGHFARES PLAN

-  FREEWAY
-  MAJOR THOROUGHFARE
-  SECONDARY THOROUGHFARE
-  RECREATIONAL STREET



Refer to GUIDE TO THOROUGHFARES PLAN
for Criteria for State Route 480



Refer to GUIDE TO THOROUGHFARES PLAN and SOUTH BAYSHORE PLAN
for Criteria for Hunters Point Freeway



Refer to DOWNTOWN TRANSPORTATION PLAN
for Details Within This Area

DOWNTOWN TRANSPORTATION PLAN

OBJECTIVE 1 PROVIDE FOR THE ROLE OF DOWNTOWN AS THE PRIMARY FINANCIAL AND ADMIN- ISTRATIVE CENTER FOR THE REGION.

San Francisco is and will continue to be the regional center for finance, corporate and governmental administration, retailing, entertainment and business services related to these sectors of the economy. The transportation requirements of a downtown dominated by these functions, as opposed to others such as manufacturing, are unique. The proper functioning of downtown is dependent upon compactness of development, strength of internal accessibility, and convenient access to downtown from other parts of the region and the world. The Mass Transit Plan recognizes the latter need by calling for rapid transit between downtown, the airports and areas where employees reside. The Downtown Transportation Plan is concerned primarily with the need for proper circulation within downtown for vehicles and pedestrians and with the organization of transit terminals and parking facilities which form part of the downtown-oriented segments of the transportation system.

Policy 1 Improve the downtown pedestrian circulation system, especially within the downtown core.

Pedestrian use of streets is very heavy in the retailing, entertainment and financial districts. A few streets should be restricted entirely to pedestrian, transit, and delivery vehicle use, and sidewalks should be widened on other streets heavily traveled by pedestrians. This would facilitate the frequent communication needed by businessmen and make shopping more pleasant.

Policy 2 Encourage short-term use of parking facilities adjacent to the downtown core.

The need for short-term parking is greatest adjacent to the downtown core for shop-

pers, visiting businessmen and others who, for various reasons, do not find transit service convenient. On the other hand, commuters generally have convenient transit service available and should be discouraged from using these parking facilities by high charges on all-day use.

Policy 3 Provide needed additional short-term parking facilities in peripheral locations around the downtown core, adjacent to major thoroughfares.

High levels of vehicular traffic within the most densely developed and most intensively used downtown core are inconsistent with adequate provision for pedestrian movements and with the nature of the overall thoroughfare system. Such vehicles should be intercepted at parking facilities located around the core next to major thoroughfares so that uncongested movement and high internal accessibility may be provided within the core. These facilities would be designed as replacements for those on-street spaces pre-empted by service or pedestrian needs within the core. Frequent transit service and adequate pedestrian-ways should be provided for the final link of these trips.

Policy 4 Develop shuttle transit systems to supplement trunk lines for travel within the greater downtown area.

While all parts of the downtown core are within easy walking distance of each other, greater downtown is sufficiently large in area that pedestrian access is not always convenient. Access should be improved with special shuttle systems similar in function to the Shoppers Shuttle buses and the cable cars. Access is particularly important between the Civic Center and the financial and retail districts, and between the Hall of Justice and other areas south and north of Market Street.

CLASSIFICATION OF ELEMENTS

PRIMARY VEHICULAR STREETS: streets functioning as major routes for automobile and truck movements into and out of the downtown area, chiefly to and from the parking belts for automobiles.

TRANSIT ARTERIALS: routes of major arterial transit lines.

DOWNTOWN CORE automobile control area: that intensely populated area which functions as a financial, administrative, shopping and entertainment center where priority must be given to the efficient and pleasant movement of business clients, shoppers and visitors; where a continuing effort should be made to improve pedestrian, transit and service vehicle access and circulation; where priority for the use of the limited street and parking space within this core should be available for these functions; and where a continuing effort should be made to reduce the impact of the private commuter vehicle.

PARKING BELTS: areas appropriate for short-term parking facilities to replace spaces removed from the core area; located and designed to intercept vehicles entering downtown from major thoroughfares before they reach the downtown core automobile control area.

PEDESTRIAN-TRANSIT-SERVICE STREETS: streets which should be oriented primarily or exclusively to satisfaction of pedestrian, transit and servicing requirements.













SHUTTLE TRANSIT: short-distance, small vehicle transit service for intradowntown movements, especially from the parking belts to the downtown core and among functional areas of downtown.

SPECIAL RECREATIONAL TRANSIT: transit having a recreational appeal while also serving as a means of moving within the downtown area or from downtown to popular shopping, entertainment or tourist attractions; should involve use of special vehicles such as double-decker buses with an open lower platform, minirails, elephant trains or minibuses.

METROPOLITAN TRANSIT TERMINALS: off-street embarkation and debarkation facilities for commuters and other inter-city travelers.



TRANSPORTATION PLAN FOR DOWNTOWN AND VICINITY

 DOWNTOWN CORE Automobile Control Area	 PRIMARY VEHICULAR STREET	 METROPOLITAN TRANSIT TERMINAL	SPECIAL TRANSIT SYSTEMS
 PARKING BELT	 TRANSIT ARTERIAL STREET	 Existing } BART/MUNI STATION	 Cable Car Route
 PARK	 PEDESTRIAN/TRANSIT/ SERVICE STREET	 Proposed }	 Special Vehicle System
			 Special Shuttle System

Policy 5

Encourage the private sector to provide additional pedestrian space in new developments.

Pedestrian traffic is increased in direct proportion to the amount of floor space added by new developments; therefore, it is to some extent a responsibility of private developers to ensure adequate provision for new needs caused by their buildings. A combination of requirements and incentives should be used to ensure the location of pedestrian resting areas, passage-ways and extra-wide sidewalks.

Policy 6

Organize and control traffic circulation to reduce congestion in the core caused by through traffic and to channel vehicles into peripheral parking facilities.

Traffic which passes through the downtown core in order to reach other destinations, such as North Beach, the Northern Waterfront, Western Addition, or South of Market, should be channeled around the downtown core in order to leave space for pedestrians and vehicles with core destinations. A necessary adjunct to the intercept principle of the downtown parking plan is the control of traffic circulation to provide access to parking facilities and to discourage it beyond them.

OBJECTIVE 2

PROVIDE CONVENIENT AND HIGH-CAPACITY LOADING POINTS FOR TRANSIT TRAVELERS.

The number of persons entering downtown for work and for other purposes increases each year. Most people, especially commuters, will come by mass transit of one form or another. They must be accommodated by properly located and designed terminals which permit efficient loading and unloading and easy access to destinations.

Policy 1

Provide for commuter bus loading, if possible, at off-street terminals; where this is not possible, special curbside loading areas should be provided at noncongested locations.

It is ultimately desirable that intercity commuter buses and rail transit be accommodated at specific terminals, as is the case with the Southern Pacific commuter trains and BART stations. Off-street terminals are required in order to provide adequate back-up space for passenger waiting, ticketing and loading. Such

terminals also reduce the amount of pedestrian and vehicular congestion on the streets. Until adequate terminals can be provided, commuter buses should load and unload at designated and easily identifiable curbside locations. These locations should be chosen according to levels of pedestrian and traffic congestion caused by other movements, consistent with the provision of convenient transit service.

Policy 2

Make convenient transfers possible by coordinating local and regional transit systems in common or nearby terminals.

One or two new terminals should be developed or an existing one upgraded to accommodate the buses and rail services provided by various regional and local lines. The terminals should be in close proximity to or fully integrated with BART stations and Muni terminals in order to make transfers from one line to another possible by a short walk. Priority should be given to a location or to locations where existing and future intensities of development are highest, as for instance, near the BART Montgomery Street station.

OBJECTIVE 3

IMPROVE FACILITIES FOR FREIGHT DELIVERIES AND BUSINESS SERVICES.

As the downtown grows, the need for adequate facilities for freight deliveries and daily services to businesses will increase. As a result, the conflict between the movement of goods and services and the movement of customers, employees and visitors, whether on foot, by transit, or in private vehicles, will increase.

Policy 1

Require off-street facilities for freight loading and service vehicles in all major new developments and seek opportunities for new facilities for old buildings.

The City Planning Code provides standards for off-street freight loading facilities which should be continually reviewed to determine their adequacy. Since much of the downtown will consist of existing buildings for the foreseeable future, it is also necessary to look for opportunities for improving their off-street facilities.

Policy 2

Encourage consolidation of freight deliveries and nighttime deliveries to produce greater efficiency and reduce congestion.

Even if there were adequate off-street loading facilities, there would still be conflict between vehicles delivering goods and other vehicular and pedestrian traffic. Deliveries which must be made across the sidewalk from on-street loading spaces disrupt pedestrian movements and increase accident potential. A system of consolidating deliveries to downtown firms should be developed, with emphasis on deliveries during the late evening and early morning periods. Deliveries in the early afternoon when the daytime population of downtown reaches its peak should be discouraged.

Policy 3

Provide short-term loading spaces on the street for small deliveries and essential services, with strict enforcement.

On-street loading and stopping spaces will continue to be required to accommodate small delivery vehicles and essential services. Strict enforcement to restrict these spaces to the vehicles for which they are intended is necessary. In general, workers performing repairs should be required to use off-street parking facilities for their vehicles.

Policy 4

Prohibit new sidewalk elevators in high pedestrian-use areas.

The narrowness of sidewalks in downtown and the high levels of pedestrian traffic make necessary the prohibition of new sidewalk delivery elevators. Safety problems for pedestrians and continual interruption of pedestrian traffic are caused by these facilities.

CITYWIDE PARKING PLAN

OBJECTIVE 1 PROVIDE PARKING FACILITIES IN RESIDENTIAL AREAS WITHIN THE CAPACITY OF THE CITY'S STREET SYSTEM AND LAND USE PATTERNS.

Vehicle ownership by city residents has been rising despite a decline in population, partly because of an increase in small households. This indicates the need for more parking facilities and raises serious questions about the level of automobile ownership which can be supported by the street and parking system. Since much of the city's housing, especially in the more densely developed areas, was built prior to the time when the automobile became the dominant mode of travel, off-street parking spaces do not exist in adequate numbers. The size of many streets and the need to provide free flows for traffic limits the number of on-street spaces. Increased parking facilities, especially off the street, need to be made available; however, this Plan recognizes that just as the street system cannot accommodate all potential traffic, so the City cannot provide for an unlimited level of automobile storage. A reasonable level must be provided for and measures must be taken to discourage vehicle accumulations beyond that level.

Policy 1

Relate off-street parking requirements in new housing to expected vehicle ownership.

Off-street parking in all new housing developments should be provided according to formulas intended to guarantee needed spaces, without requiring excesses. The level of transit service in an area and the size of units should be criteria in determining the ratio of parking spaces required. Use of common parking facilities for several buildings should be encouraged and there may be a place for public provision and leasing of long-term resident parking in high-density neighborhoods which are already developed.

Policy 2

Use existing street space to increase residential parking where off-street facilities are inadequate.

Local streets are of such width in many areas that improved parking conditions can be obtained by shifting from parallel to diagonal or perpendicular parking without a major investment. This

policy has long been followed on steep hills for safety reasons and can be applied where streets are flat in order to maximize the use of existing street space. Care must be taken, however, to ensure that the street is more than a parking lot. Proper landscaping is required to prevent lights from shining into dwellings at night and breaks in rows of cars should be provided to avoid the monotony and unsightliness of unending rows of vehicles.

There is a limit to the number of automobiles the city can accommodate, either moving or in place, especially in the densely populated neighborhoods. The possibility of a new, higher tax on second and third cars and stricter enforcement of on-street parking regulations should be explored.

OBJECTIVE 2 INCREASE SHORT-TERM PARKING FACILITIES IN NEIGHBORHOOD SHOPPING AREAS AND NEAR MAJOR INSTITUTIONAL AND RECREA- TIONAL FACILITIES.

Although a primary objective of the entire Mass Transit Plan is to encourage improved transit service to shopping areas, recreation, and institutional facilities such as hospitals, automobile use will continue for much of the travel to these places. Especially in the case of shopping trips, transit use is difficult where large packages must be picked up or many stops at different places far apart are necessary. Therefore, parking near neighborhood shopping areas will be required if they are to remain economically viable.

Policy 1

Develop new off-street parking facilities in neighborhood shopping areas, especially those serving low-density communities.

Some neighborhood shopping facilities serve only residents of the immediately surrounding areas, most of whom travel on foot. Others tend to attract consumers from adjacent communities or in low-density parts of the city from a distance not easily traversable on foot. New parking facilities to get automobiles off the street should be built to increase space for pedestrians and to relieve congestion. Both public and private garages for common use should be encouraged, and commercial space should be provided at ground level in order to maintain

and improve the business environment in these areas. Where appropriate, air rights development for public, housing or commercial usage should be encouraged.

Policy 2

Locate parking garages at the edges of shopping areas and near major entertainment, recreation, and institutional facilities.

As in the case of downtown, areas for parking should be provided at the fringe of the area of most activity in order to provide adequate pedestrian space, intercept and divert traffic, and consolidate land uses into viable and well-planned groups. Especially in the case of Golden Gate Park and Fisherman's Wharf, where through traffic is generally undesirable, parking facilities should be on the edges and, if necessary, some form of public transportation should be provided for internal circulation.

OBJECTIVE 3

PROVIDE CONVENIENT AND SAFE PARKING FACILITIES FOR BICYCLES.

Attention should be paid to the need of parking bicycles safely at major destination points. Bicycles present highly attractive, easily stolen items that are very difficult to trace and can be disposed of quickly.

Policy 1

Provide for bicycle parking, where appropriate, in conjunction with automobile parking.

Existing and new parking lots and garages should make space available for bicycle parking. Space should include mechanical devices for securing the bicycles against theft, and rates should be kept low.

Policy 2

Provide bicycle parking facilities in major new construction, such as office buildings, shopping and medical centers and residential complexes.

Policy 3

Provide for secure bicycle parking in conjunction with parks and recreation facilities.

OBJECTIVE 4 **ALLOW FOR THE SAFE USE OF THE BICYCLE AS A MEANS OF TRANSPORTATION AND RECREATION.**

The bicycle is finding increasing acceptance as a viable alternative to the automobile for work, shopping and recreation purposes. As streets become more congested, some people are finding that they can move about their cities and their neighborhoods more quickly, enjoyably and economically on bicycles. Bicycle use places a demand upon the City to integrate them into the transportation system.

Policy 1 **Establish bicycle routes between major recreation areas, residential areas, and major work centers.**

The use of the bicycle for recreation has always been popular. Bicycle paths have tradi-

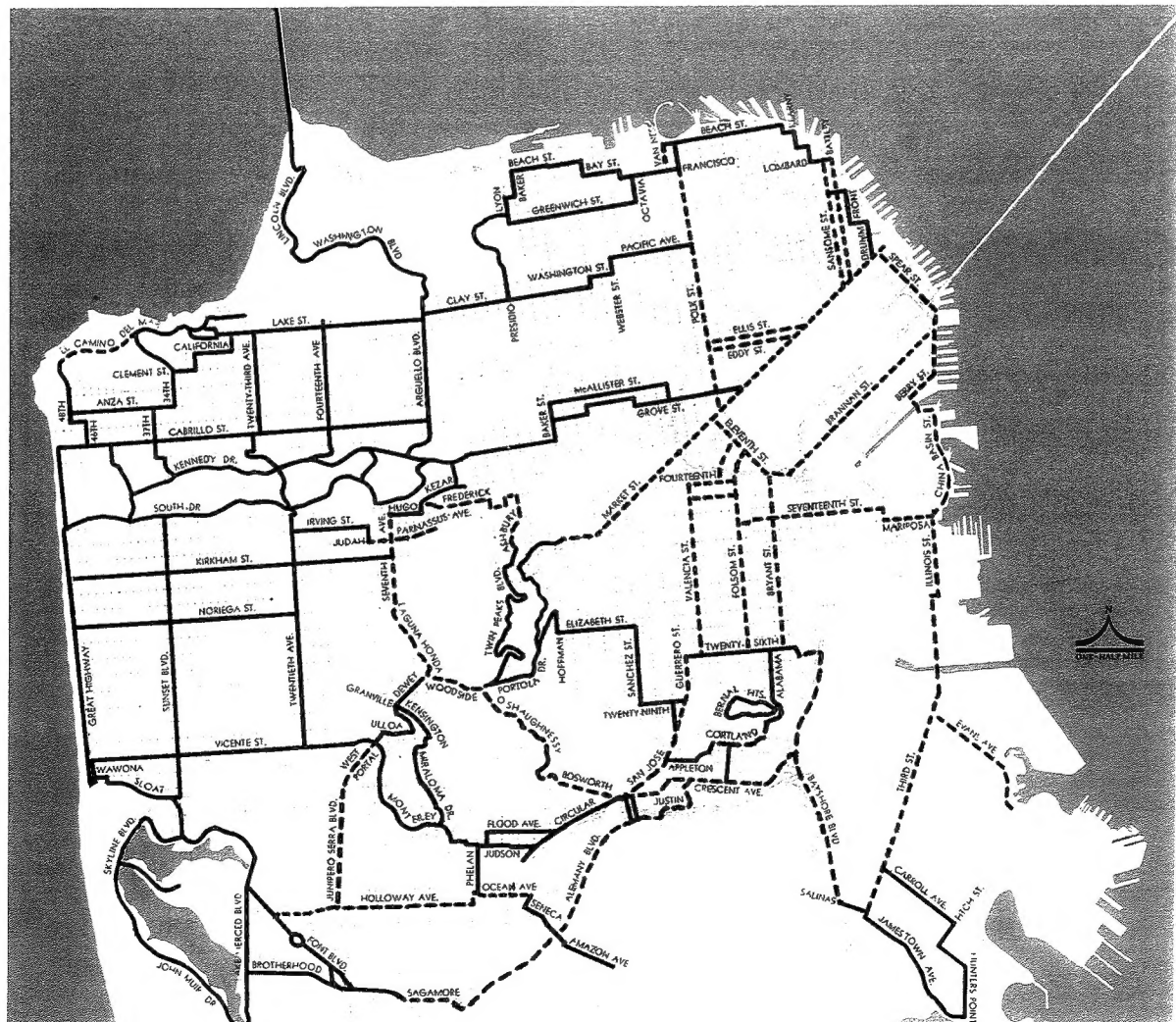
tionally been located in parks where there is less conflict with auto use and where the relatively slower pace of the bicycle allows a more leisurely view of the environment. A network of bicycle routes between major recreation areas would permit a safe way to the parks for cyclists who wish to use park bike paths and also allow park users an alternative way of getting there. In addition, steps should be taken to insure that safe and direct routes are available to major work centers. By making biking a more safe and enjoyable transportation mode, the provision of bicycle paths can be an additional means of reducing auto congestion and parking problems.

Policy 2 **Integrate separate bicycle rights-of-way when feasible and desirable in new street development, and design other bicycle routes to be compatible with the street and the purpose of the particular bicycle route.**

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Policy 3 **Encourage interregion**

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BICYCLE PLAN

— BICYCLE ROUTES

- - - STREETS TO BE IMPROVED AS BICYCLE ROUTES